

## YOUR GUIDE TO SCIATICA

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## Introduction

Please take note of the following before starting any of the exercises in this guide:

• The information contained in this guide is intended to assist in managing your recovery.

• This guide is based on the latest medical research in the field and contains the best advice available to the best of our knowledge.

• This guide is complimentary to other medical services and is not intended as a substitute for a health care provider's consultation. Never disregard medical advice or delay in seeking advice because of something you have read in this guide. • Many people have found quick and lasting relief from their pain by acting upon the information provided, but everyone decides for themselves what to do with this information. Should you doubt a particular exercise in your situation, please consult your health professional.

When consulting your health professional, it is wise to take this guide with you to show them.

## What is Sciatica?

Sciatica is the non specific term which is commonly used to describe symptoms of pain that travels along the sciatic nerve and is typically felt in the buttocks, down the back of the leg and possibly in the foot. It is usually assumed to be caused by the irritation of the main nerve into the leg, the sciatic nerve, but this is not always the case. A common neurological cause of the pain is entrapment or compression of the sciatic and/or posterior femoral cutaneous nerves. but the pain may also be caused by trigger points in the soft tissue which are often over looked. Sciatica is a symptom not a diagnosis, and it is therefore important that an accurate assessment and diagnosis is given to ensure that the treatment is appropriate for the cause. As with lower back pain, there are a number of

symptoms which serve to highlight the need to act quickly, as they may suggest a more serious problem. Early consultation with your GP or allied health professional is therefore important to identify the cause of your sciatic pain.



## What Causes Sciatica?

The exact cause of sciatica is not fully understood but is commonly thought to involve a slipped or herniated disc. The sciatic symptoms are different depending on where the pressure on the nerve occurs. Common lower back problems and other spinal conditions that can cause sciatica include:

#### 1. Lumbar Herniated Disc -

This occurs when the soft inner core of the disc extrudes through the fibrous outer core of the disc, and the bulge places pressure on the adjacent nerve root as it exits the spine. In general it is thought that a sudden twisting or injury can result in an injury to the disc, however most discs weaken due to repetitive stress and the end result is herniation. A herniated disc is sometimes referred to as a slipped disc or pinched nerve.

#### 2. Lumbar Spinal Stenosis

This condition commonly causes sciatica due to a narrowing of the spinal canal.

#### 3. Degenerative disc disease

While disc degeneration is a natural process that occurs as you get older, in some cases one or more degenerated discs can also irritate the nerve root and cause sciatica.

#### 4. Piriformis syndrome

The sciatic nerve can also get irritated as it runs under the piriformis muscle in the buttocks. If the piriformis muscle irritates or pinches a root that compromises the sciatic nerve, it can cause sciatic- type pain. This is not true sciatica, but it replicates the sciatic type pain in the leg, and is therefore often incorrectly referred to as sciatica.

#### 5. Sacroiliac joint dysfunction

Irritation of the sacroiliac joint can also irritate the sciatic nerve which lies on top of it, and cause sciaticatype pain.

Most times the cause for sciatica is nothing too serious and can be managed conservatively, but consulting your GP is important to rule out other more serious causes

# What Treatment can I Receive?

The key points about most back pain and sciatica are:

**1.** Stay active, and if at all possible, stay at work.

**2.** The pain may force you to rest, but this is a result of the pain, and not a good treatment for back pain or sciatica. If you have to take bed rest, limit it as much as possible.

**3.** Paracetamol or Ibuprofen can be used if necessary to relieve the pain and inflammation.

**4.** Avoid activities likely to put unnecessary strain on your back.

**5**. See your doctor if you feel you may have a more serious complication as discussed previously, or if you are worried about how you are doing. **6.** Consult with a physiotherapist, chiropractor or osteopath for advice and treatment for your condition. It is important to have an accurate diagnosis and the appropriate treatment. The earlier you address your pain the sooner it will heal, and the less likely you are to have a recurrance of your pain.

**7.** If you do have to be off work, keep this to a minimum, and dont expect to be completely pain free before returning.

8. In a minority of cases, the sciatica does not settle, or complications arise. This may lead your doctor to recommend surgery in order to releive the pressure on the nerve. This is not undertaken lightly and will be guided by the results of a CT or MRI scan.

## What Exercises Can I do?

Exercise is an important part of the treatment for Sciatica. The exercises should focus on strengthening, stability and flexibility exercises for the lower back, stomach and leg muscles. As with lower back pain, sciatic-type pain can recur unless a basic rehabilitation programme is maintained. Before starting an exercise programme it is important that you consult your GP or allied health professional to ensure that the exercises are appropriate for the cause of your sciatica symptoms. It is also important that you consult your health professional if you are experiencing any pain with the exercises to ensure that you are doing them correctly.

## Exercises phase 1

This phase of exercises can be started from the onset but it is important that they are completed in a pain free range of movement. It is advisible to consult with your allied health professional before starting this

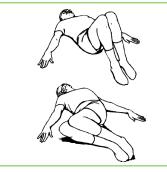
### STRETCHES

• Hold each stretch for 30 seconds and repeat 2-3 times on each side

• Ensure that you do not bounce the stretch, and that you do not stretch into pain. You should only be feeling a pull in the muscle

programme to ensure that you are performing the correct exercises for your diagnosis. This will help to prevent any increase in your pain and symptoms

• You can use a towel to assist in the stretch if needed



#### SPINAL TWIST

Lying down on your back, your arms outstretched and your knees bent. Gently roll your legs over to one side while turning your head to the opposite side. Hold for 20-30 seconds and then roll over to the other side. If you cannot feel the stretch along your spine, bring your legs up closer to your body.

#### HAMSTRINGS

Lying on your back, both legs bent and your feet flat on the floor; raise one leg and clasp your hands around

the back of your knee. Your leg needn't be straight, but your foot should be flexed and you should be pulling your raised leg down towards your chest. You should feel the stretch down the back of your raised leg and into your calf muscle. Once this gets easier one should aim at keeping the raised leg as straight as possible. A towel can be used to aid you in this stretch.

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## Exercises phase 1 (continued)



#### BUTTOCKS

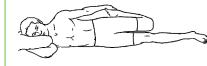
Lying on your back, rest your right ankle on your left knee. Using your hands lift your left leg into the air, bending the knee at 90°. Pull your left leg gently towards your body. You should feel a stretch in the upper back part of your right leg. A towel can be used to aid you in this stretch.

#### MCKENZIE STRETCH

Lying on your stomach, gently press up, keeping the hips on the ground. Hold the position for ten counts. Start by only going on to your elbows and gradually increase the range

#### **QUADRICEPS**

Lying on your right side, your right arm extended up to cushion your head, use your left hand to grasp your left ankle as you bend your left knee backwards. You should feel



the stretch along the front of your thigh. Repeat this twice on your right before rolling over to stretch your left leg. It is important to keep the other leg bent at both the hip and the knee, so as not to hyperextend your back. A towel can be used to aid you in this stretch if you are unable to bend your knee too far.

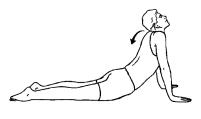
#### STABILITY EXERCISES

• Ensure that these exercises are done slowly and controlled

• Hold each repetition for 5-10 seconds and repeat 5-10 times (unless otherwise stated in the exercise) • These exercises can be done regularly i.e. if possible a few times a day

#### EXTENSION EXERCISE

Lying on your stomach, slightly up on your elbows and with the palms of your hands resting flat on the



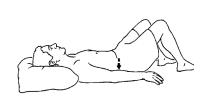
floor. Make sure that both legs are relaxed behind you and not crossed. Now gently lift yourself up with your hands extending your back, making sure that you keep both hip bones on the floor. Perform 2-3 sets of ten. After each set of 10, stand up and bend forward, making sure that your pain has not increased in your back or your leg. If it does, stop this exercise. If pain stays the same or reduces, continue with this exercise.

#### **FINDING NEUTRAL**

Lie on back with knees bent. Put hands on hip bones and flatten back into the ground. You will feel your hip bones are pointing towards you. Now arch your back up keeping buttocks on the ground. You will now feel hip bones are pointing towards your knees. Find the middle position between these two extremes and your hip bones should be pointing towards the ceiling. This is your neutral position.

#### 7

## Exercises phase 1 (continued)



#### CORE STRENGTHENING

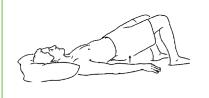
Find your neutral position. Pull your belly button towards your spine, without changing the position of your pelvis. Make sure you can still breathe. You should only feel a slight contraction in your lower abdominals. Hold for 10 seconds and repeat 10 times.



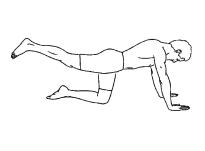
#### SINGLE LEG RAISE

Find your neutral position and pull your belly button in towards your spine as above. Now try and raise one leg towards the ceiling. Lift it slowly up and down, without moving your pelvis and losing your neutral position. Repeat 5-10 times on each leg.

#### BRIDGING

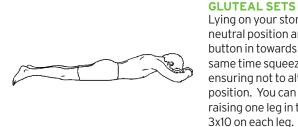


Lying on your back, bend both knees to 90° with your feet flat on the floor. Pull your belly button in towards your spine and lift your pelvis and lower back off the floor. Hold this position for 10 seconds and then lower down slowly returning to your starting position, maintaining your lower abdominal contraction throughout the movement. Repeat 10 times



### SINGLE LEG EXTENSION ON ALL FOURS

Start in an all fours position, with your hands under your shoulders, knees under your hips and back straight. Gently pull your belly button towards your spine, without changing its flat position, and slowly raise one leg straight out into the air. Make sure you do not arch your neck or back



Lying on your stomach, find your neutral position and pull your belly button in towards your spine. At the same time squeeze your bottom ensuring not to alter your pelvic position. You can progress this by raising one leg in the air. Repeat 3x10 on each leg.

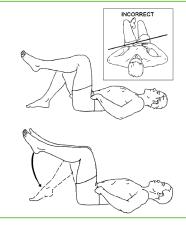
## Exercises phase 2

Phase 2 should be started once you are able to perform the exercises in phase 1 pain free and with good control. If you progress to phase 2 and feel that you are unable to do some of the exercises, don't be afraid to use some of the exercises from each phase at the same time and progress yourself slowly as you feel comfortable. Continue with the stretching programme from phase 1 at the beginning and end of each session.

### STABILITY EXERCISES

• Perform each exercise in a neutral position and ensure that you breathe normally throughout.

 Perform repetitions and sets as stated in each exercise.



LOWER ABDOMINAL STABILITY Lying on your back with your knees bent and pelvis in a neutral position. Pull your belly button in towards your spine, whilst keeping the spine in neutral. Now raise your one leg in the air, keeping it in the air raise the other leg. Slowly return both legs to the floor, one at a time. Repeat 5-10 times, moving the legs slowly and controlling your pelvic position at all times. This can be progressed to lifting and lowering both legs at the same time.

#### BRIDGING WITH ONE LEG EXTENDED

Lying on your back with both knees bent and feet flat on the floor. Find your pelvic neutral position and pull



your belly button in towards your spine. Now raise your hips in the air, and slowly lift one foot off the floor straightening your leg out in front of you. Hold for 5-10 seconds and then lower to the starting position. Make sure that you keep the pelvis stable throughout the movement and repeat 5-10 times on each side.

#### STRENGTHENING EXERCISES

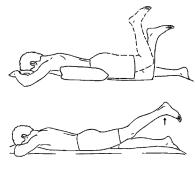
• Perform each exercise slowly, controlled and in a pain free range of motion.

• Perform 1-2 sets of 10-15 repetitions (unless otherwise stated in the exercise).

#### ALTERNATE ARM AND LEG RAISE ON ALL FOURS

In the all four position, pull your belly button towards your spine,

and raise your alternate arm and leg in the air without moving your hips and keeping your spine in a neutral position. Do not arch your neck or back. Hold for 5 seconds and repeat 5 times on each side. You can try this over an exercise ball as a progression



#### PRONE BENT KNEE LIFT

Lying on your stomach, bend knee and slowly raise heel towards the ceiling lifting your hip in the air. Keep pelvis in a neutral position and maintain. Avoid arching lower back. If there is pain in the lower back, contract your glutes and stomach to decrease the pain in the lower back. This can be progressed to raising a straight leg out behind you.



#### CURL UP

With arms at sides, start in a neutral pelvic position. Raise shoulders and head off the floor. Keep neck in a neutral position and if your neck is hurting try to put your tongue to the roof of your mouth when sitting up (this will stabilise your neck)

## Exercises phase 2 (continued)



#### DIAGONAL CURL UP

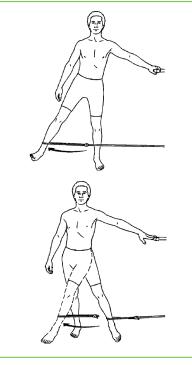
With arms at sides, find your neutral position. Raise head and shoulders, rotating to one side as shoulder blades clear the floor and hands move towards your knees.

#### **OYSTER EXERCISE**



Lying on your side with your knees bent and feet in line with your sit bone, contract your TA. Now allow the top leg to rise into the air as far as you can without moving your pelvis, and hold for 10 seconds. Make sure you control the entire motion (up and down).

WALL SLIDES Keep head, shoulders, and back against the wall with feet out in front and hip width apart. Slowly slide down the wall until thighs are parallel to the floor. Make sure your toes face forwards and that your knees do not go over your toes.



#### **STANDING LEG EXERCISES**

Tie a piece of theraband around the leg of a table or bed, and place your foot through the loop. Now perform various movements, ensuring that your pelvis is stable (neutral and TA contracted) and that you are not leaning.

**Abduction:** Take your leg away from you

Adduction: Turn around and bring your leg in towards you

## **Contact us**

This guide is designed to assist you in the self-management of your injury/ condition.

We are here to assist your recovery in the shortest but safest possible time. If you have any uncertainties or queries regarding the information, please do not hesitate to contact us on:

Phone 017890400999 / 07870166861 www.mdphysiotherapy.co.uk